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09/808,957	03/16/2001	Hisao Hayashi	SON-2050	5303

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EXAMINER

LEWIS, MONICA

ART UNIT

PAPER NUMBER

2822

DATE MAILED: 07/30/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n No.

09/808,957

Applicant(s)

HAYASHI, HISAO

Examin r

Monica Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 March 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. This office action is in response to the request for reconsideration filed June 13, 2003.

Response to Amendment

2. Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Response to Arguments

3. Applicant's arguments with respect to claims 22-49 have been considered but are moot in view of the new ground(s) of rejection.

Drawings

4. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "pixel array" and "electroluminescence display" must be shown or the feature(s) canceled from the claim(s) (See Claims 32, 36, 41 and 45). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 22-49 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The "manufacturing substrate" has been claimed however it has been removed.

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(See Claims 22, 23, 29, 30, 32, 33, 38, 39, 41, 42, 47 and 48). For example, if it has been removed how can an adhesive layer be formed between a first surface and the manufacturing substrate. Claims 24-28, 31, 34-37, 40, 43-46 and 49 depend directly or indirectly from a rejected claim and are, therefore, also rejected under 35 U.S.C. 112, second paragraph for the reasons set above.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 22 and 24-26, as far as understood, are rejected under 35 U.S.C. 103(a) as obvious over Yoshinaga et al. (U.S. Patent No. 5,475,515) in view of Toshiba (Japanese Patent No. 11265155).

In regards to claim 22, Yoshinaga et al. ("Yoshinaga") discloses the following:

a) a product substrate (501 and 501a) and a thin film device (508) (For Example: See Figure 6); and

b) product substrate is one of an organic material, wherein said product substrate has a first side and a second side opposed to said first side (For Example: See Column 20 Lines 3-21).

In regards to claim 22, Yoshinaga fails to disclose the following:

a) substrate is comprised of metal.

However, Toshiba discloses the use of a metal coated on a substrate (For Example: See Abstract). It would have been obvious to one having ordinary skill in the art at the time the

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invention was made to modify the semiconductor device of Yoshinaga to include the use of a metal coated on a substrate as disclosed in Toshiba because it aids in stabilizing the display (For Example: See Abstract).

Additionally, since Yoshinaga and Toshiba are both from the same field of endeavor, the purpose disclosed by Yoshinaga would have been recognized in the pertinent art of Toshiba.

b) manufacturing substrate is removed to expose said first side, thereby leaving said product substrate and said thin film device.

However, the limitation of "manufacturing substrate is removed to expose said first side, thereby leaving said product substrate and said thin film device" makes it a product by process claim. The MPEP § 2113, states, "Even though product -by[-] process claims are limited by and defined by the process, determination of patentability is based upon the product itself. The patentability of a product does not depend on its method of production. If the product in product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product is made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted).

A "product by process" claim is directed to the product per se, no matter how actually made, *In re Hirao and Sato et al.*, 190 USPQ 15 at 17 (CCPA 1976) (footnote 3). See also *In re Brown and Saffer*, 173 USPQ 685 (CCPA 1972); *In re Luck and Gainer*, 177 USPQ 523 (CCPA 1973); *In re Fessmann*, 180 USPQ 324 (CCPA 1974); and *In re Marosi et al.*, 218 USPQ 289 (CAFC 1983) final product per se which must be determined in a "product by, all of" claim, and not the patentability of the process, and that an old or obvious product, whether claimed in "product by process" claims or not. Note that Applicant has the burden of proof in such cases, as the above caselaw makes clear.

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In regards to claim 24, Yoshinaga discloses the following:

- a) thin film device is a thin film transistor (For Example: Figure 6).

In regards to claim 25, Yoshinaga fails to disclose the following:

- a) metal is aluminum.

However, Toshiba discloses the use of aluminum coated on a substrate (For Example: See Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Yoshinaga to include the use of aluminum coated on a substrate as disclosed in Toshiba because it aids in stabilizing the display (For Example: See Abstract).

Additionally, since Yoshinaga and Toshiba are both from the same field of endeavor, the purpose disclosed by Yoshinaga would have been recognized in the pertinent art of Toshiba.

In regards to claim 26, Yoshinaga discloses the following:

- a) organic material is a plastic (For Example: See Column 20 Lines 3-21).

9. Claim 27, as far as understood, is rejected under 35 U.S.C. 103(a) as obvious over Yoshinaga et al. (U.S. Patent No. 5,475,515) in view of Toshiba (Japanese Patent No. 11265155) and Yamazaki (U.S. Patent No. 6,057,234).

In regards to claim 27, Yoshinaga fails to disclose the following:

- a) a moisture-proof buffer film is formed between said second surface and said thin film device.

However, Yamazaki discloses the use of a buffer film (For Example: See Figure 3A). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Yoshinaga to include the use of a buffer film as

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disclosed in Yamazaki because it aids in reducing defective contacts (For Example: See Column 3 Lines 1-5).

Additionally, since Yoshinaga and Yamazaki are both from the same field of endeavor, the purpose disclosed by Yamazaki would have been recognized in the pertinent art of Yoshinaga.

10. Claim 28, as far as understood, is rejected under 35 U.S.C. 103(a) as obvious over Yoshinaga et al. (U.S. Patent No. 5,475,515) in view of Toshiba (Japanese Patent No. 11265155) and Hoffend, Jr. et al. (U.S. Publication No. 2002/0164535).

In regards to claim 28, Yoshinaga fails to disclose the following:

a) plastic is from the group comprising polyether sulfone resin, polyethylene terephthalate resin and ARTON resin.

However, Hoffend, Jr. et al. ("Hoffend, Jr.") discloses polyethylene terephthalate resin (For Example: See Page 8 Paragraph 71). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Yoshinaga to include polyethylene terephthalate resin as disclosed in Hoffend, Jr. because it is substantially transmissive to visible light (For Example: See Page 8 Paragraph 71).

Additionally, since Yoshinaga and Hoffend, Jr. are both from the same field of endeavor, the purpose disclosed by Hoffend, Jr. would have been recognized in the pertinent art of Yoshinaga.

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11. Claims 31, as far as understood, is rejected under 35 U.S.C. 103(a) as obvious over Yoshinaga et al. (U.S. Patent No. 5,475,515) in view of Toshiba (Japanese Patent No. 11265155) and Bae (U.S. Patent No. 6,458,613).

In regards to claim 31, Yoshinaga fails to disclose the following:

a) adhesive layer is from the group comprising a polyimide, Teflon resin, silicon, germanium and metal.

However, Bae discloses an adhesive made of silicon (For Example: See Column 1 Lines 62-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Yoshinaga to include silicon as disclosed in Bae because it has a good adhesive property (For Example: See Column 1 Lines 62-65).

Additionally, since Yoshinaga and Bae are both from the same field of endeavor, the purpose disclosed by Bae would have been recognized in the pertinent art of Yoshinaga.

12. Claims 32, 34, 35, 41, 43 and 44, as far as understood, are rejected under 35 U.S.C. 103(a) as obvious over Yoshinaga et al. (U.S. Patent No. 5,475,515) in view of Toshiba (Japanese Patent No. 11265155) and Leventis et al. (U.S. Patent No. 5,189,549).

In regards to claim 32, Yoshinaga discloses the following:

a) a product substrate (For Example: See Figure 6); and

b) product substrate is one of an organic material, wherein said product substrate has a first side and a second side opposed to said first side (For Example: See Column 20 Lines 3-21).

In regards to claim 32, Yoshinaga fails to disclose the following:

a) substrate is comprised of metal.

However, Toshiba discloses the use of a metal coated on a substrate (For Example: See Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Yoshinaga to include the use of a metal coated on a substrate as disclosed in Toshiba because it aids in stabilizing the display (For Example: See Abstract).

Additionally, since Yoshinaga and Toshiba are both from the same field of endeavor, the purpose disclosed by Yoshinaga would have been recognized in the pertinent art of Toshiba.

b) a pixel array.

However, Leventis et al. ("Leventis") discloses a pixel array (For Example: See Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Yoshinaga to include a pixel array as disclosed in Leventis because it aids in displaying information (For Example: See Column 1 Lines 11-13).

Additionally, since Yoshinaga and Leventis are both from the same field of endeavor, the purpose disclosed by Leventis would have been recognized in the pertinent art of Yoshinaga.

c) manufacturing substrate is removed to expose said first side, thereby leaving said product substrate and said pixel array.

However, the limitation of "manufacturing substrate is removed to expose said first side, thereby leaving said product substrate and said pixel array" makes it a product by process claim. The MPEP § 2113, states, "Even though product -by[-] process claims are limited by and defined by the process, determination of patentability is based upon the product itself. The patentability of a product does not depend on its method of production. If the product in product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even

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though the prior product is made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted).

A "*product by process*" claim is directed to the product per se, no matter how actually made, *In re Hirao and Sato et al.*, 190 USPQ 15 at 17 (CCPA 1976) (footnote 3). See also *In re Brown and Saffer*, 173 USPQ 685 (CCPA 1972); *In re Luck and Gainer*, 177 USPQ 523 (CCPA 1973); *In re Fessmann*, 180 USPQ 324 (CCPA 1974); and *In re Marosi et al.*, 218 USPQ 289 (CAFC 1983) final product per se which must be determined in a "*product by, all of*" claim, and not the patentability of the process, and that an old or obvious product, whether claimed in "*product by process*" claims or not. Note that Applicant has the burden of proof in such cases, as the above caselaw makes clear.

In regards to claims 34 and 43, Yoshinaga fails to disclose the following:

a) metal is aluminum.

However, Toshiba discloses the use of aluminum coated on a substrate (For Example: See Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Yoshinaga to include the use of aluminum coated on a substrate as disclosed in Toshiba because it aids in stabilizing the display (For Example: See Abstract).

Additionally, since Yoshinaga and Toshiba are both from the same field of endeavor, the purpose disclosed by Yoshinaga would have been recognized in the pertinent art of Toshiba.

In regards to claims 35 and 44, Yoshinaga discloses the following:

a) organic material is a plastic (For Example: See Page 10 Lines 20-24).

In regards to claim 41, Yoshinaga discloses the following:

- a) a product substrate (For Example: See Figure 6); and
- b) product substrate is one of an organic material, wherein said product substrate has a first side and a second side opposed to said first side (For Example: See Column 20 Lines 3-21).

In regards to claim 41, Yoshinaga fails to disclose the following:

- a) substrate is comprised of metal.

However, Toshiba discloses the use of a metal coated on a substrate (For Example: See Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Yoshinaga to include the use of a metal coated on a substrate as disclosed in Toshiba because it aids in stabilizing the display (For Example: See Abstract).

Additionally, since Yoshinaga and Toshiba are both from the same field of endeavor, the purpose disclosed by Yoshinaga would have been recognized in the pertinent art of Toshiba.

- b) an electroluminescence device.

However, Leventis discloses an electroluminescence device (For Example: See Abstract). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Yoshinaga to include an electroluminescence device as disclosed in Leventis because it aids in displaying information (For Example: See Column 1 Lines 11-18).

Additionally, since Yoshinaga and Leventis are both from the same field of endeavor, the purpose disclosed by Leventis would have been recognized in the pertinent art of Yoshinaga.

- c) manufacturing substrate is removed to expose said first side, thereby leaving said product substrate and said electroluminescence device.

However, the limitation of "manufacturing substrate is removed to expose said first side, thereby leaving said product substrate and said electroluminescence device" makes it a product by process claim. The MPEP § 2113, states, "Even though product -by[-] process claims are limited by and defined by the process, determination of patentability is based upon the product itself. The patentability of a product does not depend on its method of production. If the product in product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product is made by a different process." *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985)(citations omitted).

A "product by process" claim is directed to the product per se, no matter how actually made, *In re Hirao and Sato et al.*, 190 USPQ 15 at 17 (CCPA 1976) (footnote 3). See also *In re Brown and Saffer*, 173 USPQ 685 (CCPA 1972); *In re Luck and Gainer*, 177 USPQ 523 (CCPA 1973); *In re Fessmann*, 180 USPQ 324 (CCPA 1974); and *In re Marosi et al.*, 218 USPQ 289 (CAFC 1983) final product per se which must be determined in a "product by, all of" claim, and not the patentability of the process, and that an old or obvious product, whether claimed in "product by process" claims or not. Note that Applicant has the burden of proof in such cases, as the above caselaw makes clear.

13. Claims 36 and 45, as far as understood, is rejected under 35 U.S.C. 103(a) as obvious over Yoshinaga et al. (U.S. Patent No. 5,475,515) in view of Toshiba (Japanese Patent No. 11265155), Leventis et al. (U.S. Patent No. 5,189,549) and Yamazaki (U.S. Patent No. 6,057,234).

In regards to claim 36 and 45, Yoshinaga fails to disclose the following:

a) a moisture-proof buffer film is formed between said second surface and said thin film device.

However, Yamazaki discloses the use of a buffer film (For Example: See Figure 3A). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Yoshinaga to include the use of a buffer film as disclosed in Yamazaki because it aids in reducing defective contacts (For Example: See Column 3 Lines 1-5).

Additionally, since Yoshinaga and Yamazaki are both from the same field of endeavor, the purpose disclosed by Yamazaki would have been recognized in the pertinent art of Yoshinaga.

A "*product by process*" claim is directed to the product per se, no matter how actually made, *In re Hirao and Sato et al.*, 190 USPQ 15 at 17 (CCPA 1976) (footnote 3). See also *In re Brown and Saffer*, 173 USPQ 685 (CCPA 1972); *In re Luck and Gainer*, 177 USPQ 523 (CCPA 1973); *In re Fessmann*, 180 USPQ 324 (CCPA 1974); and *In re Marosi et al.*, 218 USPQ 289 (CAFC 1983) final product per se which must be determined in a "*product by, all of*" claim, and not the patentability of the process, and that an old or obvious product, whether claimed in "*product by process*" claims or not. Note that Applicant has the burden of proof in such cases, as the above caselaw makes clear.

14. Claims 37 and 46, as far as understood, are rejected under 35 U.S.C. 103(a) as obvious over Yoshinaga et al. (U.S. Patent No. 5,475,515) in view of Toshiba (Japanese Patent No. 11265155) and Leventis et al. (U.S. Patent No. 5,189,549) and Hoffend, Jr. et al. (U.S. Publication No. 2002/0164535).

In regards to claims 37 and 46, Yoshinaga fails to disclose the following:

a) plastic is from the group comprising polyether sulfone resin, polyethylene terephthalate resin and ARTON resin.

However, Hoffend, Jr. discloses polyethylene terephthalate resin (For Example: See

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Page 8 Paragraph 71). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Yoshinaga to include polyethylene terephthalate resin as disclosed in Hoffend, Jr. because it is substantially transmissive to visible light (For Example: See Page 8 Paragraph 71).

Additionally, since Yoshinaga and Hoffend, Jr. are both from the same field of endeavor, the purpose disclosed by Hoffend, Jr. would have been recognized in the pertinent art of Yoshinaga.

15. Claims 40 and 49, as far as understood, are rejected under 35 U.S.C. 103(a) as obvious over Yoshinaga et al. (U.S. Patent No. 5,475,515) in view of Toshiba (Japanese Patent No. 11265155) and Leventis et al. (U.S. Patent No. 5,189,549) and Bae (U.S. Patent No. 6,458,613).

In regards to claims 40 and 49, Yoshinaga fails to disclose the following:

a) adhesive layer is from the group comprising a polyimide, Teflon resin, silicon, germanium and metal.

However, Bae discloses an adhesive made of silicon (For Example: See Column 1 Lines 62-65). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the semiconductor device of Yoshinaga to include silicon as disclosed in Bae because it has a good adhesive property (For Example: See Page 1 Lines 62-65).

Additionally, since Yoshinaga and Bae are both from the same field of endeavor, the purpose disclosed by Bae would have been recognized in the pertinent art of Yoshinaga.

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Conclusion

16. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monica Lewis whose telephone number is 703-305-3743.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amir Zarabian can be reached on 703-308-4905. The fax phone number for the organization where this application or proceeding is assigned is 703-308-7722 for regular and after final communications. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

ML

July 10, 2003


AMIR ZARABIAN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800